In the Claims:

Claims **1 to 20** (canceled).

21. (previously presented) Deployable structure with a modular configuration consisting of at least one collapsible module (91), which is bounded by joints (114, 115, 126, 121) of a first joint set, which are corner joints of the module (91) and lie in a first surface, and by joints (101, 102, 113, 108) of a second joint set, which are corner joints of the module (91) and lie in a second surface, and with at least a first joint (109, 122) of a third joint set, which first joint lies outside of the first surface and is not located at a corner of the module, whereby at least some of the joints of the first and second joint sets respectively have a constrained and fixable position relative to one another by being connected with one another by a guide mechanism comprising scissors arrangements, characterized in that:

the first joint (109) of the third joint set is connected respectively with at least two of the joints (114, 115, 113, 121) selected from at least one of the first and second joint sets by a respective tension-only connecting element (39, 41, 43, 45) that is adapted and able to transmit only tension forces,

said first joint (109) of the third joint set is arranged below a lowermost joint (114, 115, 121) among the joints of the first joint set with which said first joint (109) of the third joint set is connected,

forces arising upon loading of the structure by at least one of a useful working load and a self-weight load are transmittable as tension forces away from said first joint (109) of the third joint set to the joints (114, 115, 113, 121) of at least one of the first and second joint sets via the tension-only connecting element (39, 41, 43, 45) that is adapted and able to transmit only tension forces,

a second joint (122) of the third joint set is connected with at least one joint (101, 102, 113, 108) of the second joint set by a connecting element (40, 42, 44, 46) that transmits tension and compression forces, and

the first joint (109) of the third joint set is connected with the second joint (122) of the third joint set by a connecting element (11) that transmits compression and tension forces.

Claims **22 to 24** (canceled).

25. (previously presented) Structure according to claim 21, characterized in that at least one of the first surface and the second surface is a respective plane.

26. (previously presented) Deployable structure with a modular configuration consisting of at least one collapsible module (91), which is bounded by joints (114, 115, 126, 121) of a first joint set, which are corner joints of the module (91) and lie in a first surface, and by joints (101, 102, 113,

108) of a second joint set, which are corner joints of the module (91) and lie in a second surface, and with at least one joint (109, 122) of a third joint set, which lies outside of the first surface, whereby at least some of the joints of the first and second joint sets respectively have a fixable position relative to one another by being connectable with one another by a guide mechanism, characterized in that, one of the joints (109) of the third joint set is connected respectively with at least two of the joints (114, 115, 113, 121) selected from at least one of the first and second joint sets by a respective tension-only connecting element (39, 41, 43, 45) that is adapted and able to transmit only tension forces, and said one of the joints of the third joint set is arranged below a lowermost joint (114, 115, 121) among the joints of the first joint set with which said one of the joints of the third joint set is connected, and characterized in that forces arising upon loading of the structure by at least one of a useful working load and a self-weight load are transmittable as tension forces away from said one of the joints (109) of the third joint set to the joints (114, 115, 113, 121) of at least one of the first and second joint sets via the tension-only connecting element (39, 41, 43, 45) that is adapted and able to transmit only tension forces, and further characterized in that all of the joints (101, 102, 113, 108) of the second joint set, and said one of the joints (109) of the third joint set, which is connected with said at least two joints (114, 115, 113,

121) selected from at least one of the first and second joint sets by the tension-only connecting element (39, 41, 43, 45), lie in one plane.

Claim **27** (canceled).

28. (previously presented) Structure according to claim 21, characterized in that the scissors arrangements of the guide mechanism comprise guide means, and in that at least one joint (114) of the first joint set of a first corner of the module (91) arranged on an outer perimeter of the structure is connected by the guide means with a joint (102) of the second joint set of a first neighboring corner of the module (91) opposite the first corner and arranged on the outer perimeter of the structure, and a joint (101) of the second joint set of a second corner is connected by the guide means with a joint (115) of the first joint set of a second neighboring corner opposite the second corner.

29. (previously presented) Structure according to claim 28, characterized in that the guide means comprise connecting elements (15, 16) that transmit tension and compression forces and that are crossed-over and pivotally connected with one another.

30. (previously presented) Structure according to claim 29, characterized in that the connecting elements (16, 32, 17, 20, 34, 21, 24, 36, 25, 28, 38, 29) that transmit tension

and compression forces and that lead to supports of the structure have a greater load capacity and a larger diameter, than remaining ones of the connecting elements (15, 31, 18, 19, 33, 22, 23, 35, 26, 27, 37, 30) of the guide means.

31. (previously presented) Structure according to claim 29, characterized in that at least a portion of the connecting elements (15, 16; 17, 18; up to 37, 38), which are pair-wise crossed-over and pivotally connected with one another and which transmit tension and compression forces, are connected with one another offset from their center in the longitudinal direction.

32. (previously presented) Structure according to claim 21, characterized in that multiple modules (91, 92, 93, 94) are arranged next to one another, and in that neighboring modules comprise common joints.

33. (previously presented) Deployable structure with a modular configuration consisting of at least one collapsible module (91), which is bounded by joints (114, 115, 126, 121) of a first joint set, which are corner joints of the module (91) and lie in a first surface, and by joints (101, 102, 113, 108) of a second joint set, which are corner joints of the module (91) and lie in a second surface, and with at least one joint (109, 122) of a third joint set, which joint lies outside of the first surface and is not located at a corner

of the module, whereby at least some of the joints of the first and second joint sets respectively have a constrained and fixable position relative to one another by being connected with one another by a guide mechanism comprising scissors arrangements, characterized in that, one of the joints (109) of the third joint set is connected respectively with at least two of the joints (114, 115, 113, 121) selected from at least one of the first and second joint sets by a respective tension-only connecting element (39, 41, 43, 45) that is adapted and able to transmit only tension forces, and said one of the joints of the third joint set is arranged below a lowermost joint (114, 115, 121) among the joints of the first joint set with which said one of the joints of the third joint set is connected, and characterized in that forces arising upon loading of the structure by at least one of a useful working load and a self-weight load are transmittable as tension forces away from said one of the joints (109) of the third joint set to the joints (114, 115, 113, 121) of at least one of the first and second joint sets via the tension-only connecting element (39, 41, 43, 45) that is adapted and able to transmit only tension forces, and characterized in that the expansion of the module (91) or the structure (90) is adjustable by an operating arrangement.

34. (previously presented) Structure according to claim 33, characterized in that the operating arrangement comprises

expansion and retraction mechanisms including an expansion cable and a retraction cable, which are guided in the respective joints over deflection mechanisms and are fixably operable on a common joint (101).

35. (previously presented) Structure according to claim 34, characterized in that the expansion cable (1) is guided in the respective joints over deflection mechanisms including deflection rollers or deflection saddles, with at least two different deflection radii.

36. (previously presented) Structure according to claim 34, characterized in that the structure (90) can have a pre-stress applied thereto by means of the operating arrangement, and thereby the structure (90) takes on a prescribable form in a loaded condition.

37. (previously presented) Structure according to claim 21, characterized in that at least some of the joints selected from at least one of the first joint set (114 to 121, 126), the second joint set (101 to 108, 113), and the third joint set (109 to 112, 122 to 125) are connectable by a membrane in such a manner so that thereby an at least partially closed outer surface of the first or second surface is formed.

38. (previously presented) Structure according to claim 21, characterized in that at least a portion of the joints (114

to 121, 126) of the first joint set and at least a portion of the joints (122 to 125) of the third joint set are connectable with at least one triangular panel element (201 to 216) in such a manner so that thereby an at least partially closed outer surface of the first surface is formed.

39. (previously presented) Structure according to claim 21, characterized in that the connecting elements that transmit tension and compression forces are articulately joined on the respective joints and are formed by rods of aluminum.

40. (previously presented) Deployable structure with a modular configuration consisting of at least one collapsible module (91), which is bounded by joints (114, 115, 126, 121) of a first joint set, which are corner joints of the module (91) and lie in a first surface, and by joints (101, 102, 113, 108) of a second joint set, which are corner joints of the module (91) and lie in a second surface, and with at least one joint (109, 122) of a third joint set, which lies outside of the first surface, whereby at least some of the joints of the first and second joint sets respectively have a fixable position relative to one another by being connectable with one another by a guide mechanism, characterized in that, one of the joints (109) of the third joint set is connected respectively with at least two of the joints (114, 115, 113, 121) selected from at least one of the first and second joint sets by a respective

tension-only connecting element (39, 41, 43, 45) that is adapted and able to transmit only tension forces, and said one of the joints of the third joint set is arranged below a lowermost joint (114, 115, 121) among the joints of the first joint set with which said one of the joints of the third joint set is connected, and characterized in that forces arising upon loading of the structure by at least one of a useful working load and a self-weight load are transmittable as tension forces away from said one of the joints (109) of the third joint set to the joints (114, 115, 113, 121) of at least one of the first and second joint sets via the tension-only connecting element (39, 41, 43, 45) that is adapted and able to transmit only tension forces, and further characterized in that the tension-only connecting elements that are adapted and able to transmit only tension forces are attached by being articulately joined on the respective joints, and at least partially are formed by respectively two parallel extending wires or cables of steel.

41. (previously presented) Deployable structure with a modular configuration consisting of at least one collapsible module (91), which is bounded by joints (114, 115, 126, 121) of a first joint set, which are corner joints of the module (91) and lie in a first surface, and by joints (101, 102, 113, 108) of a second joint set, which are corner joints of the module (91) and lie in a second surface, and with at least one joint (109, 122) of a third joint set, which joint lies

outside of the first surface and is not located at a corner of the module, whereby at least some of the joints of the first and second joint sets respectively have a constrained and fixable position relative to one another by being connected with one another by a guide mechanism comprising scissors arrangements, characterized in that, one of the joints (109) of the third joint set is connected respectively with at least two of the joints (114, 115, 113, 121) selected from at least one of the first and second joint sets by a respective tension-only connecting element (39, 41, 43, 45) that is adapted and able to transmit only tension forces, and said one of the joints of the third joint set is arranged below a lowermost joint (114, 115, 121) among the joints of the first joint set with which said one of the joints of the third joint set is connected, and characterized in that forces arising upon loading of the structure by at least one of a useful working load and a self-weight load are transmittable as tension forces away from said one of the joints (109) of the third joint set to the joints (114, 115, 113, 121) of at least one of the first and second joint sets via the tension-only connecting element (39, 41, 43, 45) that is adapted and able to transmit only tension forces, wherein each said tension-only connecting element comprises at least one wire or cable that is adapted and able to transmit only tension forces.

Claims **42 to 48** (canceled).